

I claim:

1. A composite anti-friction bearing structure comprising:  
a bearing substrate, and  
an anti-friction layer formed by sintering onto said bearing substrate a sintering composition comprised of from 5 wt% to the percolation limit of particles of a hardfacing composition, the balance comprising bronze powder, a lead alloy powder, a tin powder or a tin alloy powder.
2. A composite anti-friction bearing structure as in claim 1, wherein said bearing structure is a bushing, a wear plate, or a wear ring.
3. A composite anti-friction bearing structure as in claim 1, wherein said hardfacing composition comprises from 2-15 wt.% of the sintering composition.
4. A composite anti-friction bearing structure as in claim 1, wherein said particles of hardfacing composition have a number average particle size of from 5 to 200  $\mu\text{m}$ .
5. A composite anti-friction bearing structure as in claim 4, wherein said particles of hardfacing composition have a particle size of from 10 to 60  $\mu\text{m}$  with a mean of 25-30  $\mu\text{m}$ .
6. A composite anti-friction bearing structure as in claim 4, wherein said particles of hardfacing composition have globular shapes.
7. A composite anti-friction bearing structure as in claim 1, wherein said hardfacing composition is an intermetallic hardfacing alloy comprising = 50 wt.% cobalt and = 25 wt% molybdenum.

8. A composite anti-friction bearing structure as in claim 1, wherein said hardfacing composition is comprised of:

Chromium	8.5 wt.%
Carbon	up to a maximum of 0.08 wt.%
Silicon	2.6 wt.%
Molybdenum	28.5 wt.%
Nickel and Iron	jointly up to a maximum of 3 wt.%

with the balance being Cobalt.

9. A composite anti-friction bearing structure as in claim 1, wherein said hardfacing composition is comprised of:

Cobalt	51.0-53.0 wt.%
Chromium	16.5-17.5 wt.%
Silicon	3.0-3.5 wt.%
Nickel and Iron	3.0 wt.% Max
Molybdenum	27-29 wt.%
Sulfur	.03 wt.% Max
Phosphorus	.03 wt.% Max, and
Carbon	.1 wt.% Max.

10. A composite anti-friction bearing structure as in claim 1, wherein said balance of said sintering composition is comprised of bronze powder.

11. A composite bushing for use in a die set, comprising:  
a monolithic steel body having a machined internal cylindrical surface; and

a porous bearing layer on said internal cylindrical surface;  
said bearing layer formed by compacting and then sintered *in situ* on said internal cylindrical surface a sintering composition comprised of from 5 wt% to the percolation limit of particles of a hardfacing composition, the balance comprising bronze, followed by machining, said bearing layer having a thickness of no greater than approximately 0.31 cm.

12. The composite bushing of claim 11, wherein said bronze powder comprises approximately 90% by weight copper and approximately 10% by weight tin.